# UNITED STATES PATENT AND TRADEMARK OFFICE

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| 10/764,966 | 01/26/2004 | Michael F. Angelo | 200314542-1 | 9327 |

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| 22879 | 7590 | 12/06/2007 | | EXAMINER | |
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| INTELLECTUAL PROPERTY ADMINISTRATION | | | ART UNIT | | PAPER NUMBER |
| FORT COLLINS, CO 80527-2400 | | | 2134 | | |

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| 12/06/2007 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 04/07)

| | **Application No.** | **Applicant(s)** |
|---|---|---|
| **Office Action Summary** | 10/764,966 | ANGELO ET AL. |
| | **Examiner** | **Art Unit** | |
| | Andrew L. Nalven | 2134 | |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>27 September 2004</u>.

2a)☒ This action is **FINAL**.       2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-37</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-5 and 7-37</u> is/are rejected.

7)☒ Claim(s) <u>6</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>26 January 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

## DETAILED ACTION

1.    Claims 1-37 are pending.

### *Response to Arguments*

2.    Applicant's arguments regarding the security modules being in a single computer are moot in view of the new grounds of rejection.

3.    Applicant's remaining arguments filed 27 September 2007 have been fully considered but they are not persuasive.

4.    Applicant has argued that the combination of Williams and Challener fail to teach a detector that is adapted to detect if a module is controlling by asserting that in Williams it is the management module acts and the security modules themselves do not make any determinations. Examiner respectfully disagrees. The management module makes the determination of which security module is primary, but it then instructs the security module to enter either primary or secondary mode (Williams, column 11 lines 34-44). The security module receives a message instructing whether the security module is in primary or standy/backup mode. Hence, William's security module detects a packet or instruction which commands the security module to enter into a particular mode. This meets the provided limitation of "a detector that is adapted to determine."

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.      **Claims 1-5, 7-37 are rejected under** 35 U.S.C. 103(a) as being unpatentable

over Applicant's admitted prior art (hereafter APA) in view of Challener US Patent No.

7,095,859 in view of Williams US Patent No. 5,559,883.

6.      **With regards to claims 1, 13, 21, 31, 32,** APA teaches a first security module in

a computer along with a second security module in a computer (APA, Specification of

Application 10/764966, paragraph 4).  However, APA fails to teach a method of

initializing the security modules by determining which module is subordinate.  However,

Challener teaches a method of initializing a security module (Challener, column 4 lines

55-65, key is generated or received in order to allow use) the method comprising the

acts of generating at least one key if the security module is the controlling security

module (Challener, column 4 lines 55-65, client or server generates the private key) and

receiving at least one key from another security module if the security module is the

subordinate security module (Challener, column 4 line 60 – column 5 line 6, private key

is migrated to other machine).  Further, Williams teaches determining whether the

security module is a controlling module or a subordinate security module (Williams,

column 11 lines 15-65, management module detects failure of the primary security

module). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Challener's initialization method and William's method of determining whether there a module is controlling or subordinate because it offers the advantage of ensuring that a primary module is always available and that a module failure will not stop system operation (Williams, column 11 lines 44-53) and allowing for key migration such that a user's key can be used in any environment (Challener, column 2 lines 44-67).

7.    **With regards to claim 2**, APA as modified teaches the act of initializing the security modules in a system so that the security module has at least one common key with another security module (Challener, column 4 lines 55-65, migrating private key from one machine to another).

8.    **With regards to claims 3, 14, 24, 37**, APA as modified teaches the security module comprises a trusted platform module (Challener, column 4 lines 12-67, client TPM 22 and server TPM processor 44).

9.    **With regards to claim 4**, APA as modified teaches measuring a system once the at least one key is generated (Williams, column 11 lines 34-44, measures a time window to determine if failure occurred).

10.    **With regards to claims 5, 18, 22, 28**, APA as modified teaches the security module measuring a system once the at least one key is generated (Williams, column 11 lines 34-44, measures a time window to determine if failure occurred).

11.    **With regards to claims 7, 16, 25**, APA as modified teaches the at least one key comprising an endorsement key (Challener, column 4 lines 55-65, private key).

12.     **With regards to claims 8, 26**, APA as modified teaches the at least one key

comprising a private key and a public key (Challener, column 4 lines 55-67, private key

and non-migratable public key).

13.     **With regards to claims 9, 19, 29,** APA as modified teaches the act of accessing

a lock bit to determine if the security module is the controlling security module or the

subordinate security module (Williams, column 11 lines 40-45, status flag).

14.     **With regards to claim 10**, APA as modified teaches the lock bit being a setting

within the memory of the system (Williams, column 11 lines 40-45, status flag stored at

port).

15.     **With regards to claims 11, 20**, APA as modified teaches accessing the lock bit

via a bus coupled to the security module and the memory or via a bus and an

input/output controller coupled between the security module and the memory (Williams,

column 11 lines 43-53, management module accesses the port, Challener, column 4

lines 5-11).

16.     **With regards to claim 12**, APA as modified teaches the act of determining if the

security module in the system is initialized (Challener, column 5 lines 6-21, queries to

determine if private key is stored).

17.     **With regards to claim 15**, APA as modified teaches the act of determining if the

security module has undergone TPM initialization (Challener, column 5 lines 6-21,

queries to determine if private key is stored).

18.     **With regards to claim 17**, APA as modified teaches the at least one key

comprising a private key (Challener, column 4 lines 55-67, private key).

19.     **With regards to claims 23, 36**, APA, Challener and Williams teach everything

described above with regards to claim 1 and further teach a processor (Challener,

column 3 lines 55-60, cpu), a hard disk operatively coupled to the processor and

configured to store data for the processor (Challener, column 3 lines 55-60, hard disk),

a memory operatively coupled to the processor and configured to store data retrieved

from the hard disk for use by the processor (Challener, column 3 lines 55-60, computers

with CPUs have attached RAM to stored data retrieved from a hard disk) and a first

security module and a second security module each operatively coupled to the

processor and the memory (Challener, column 3 line 55 – column 4 line 12, TPM,

Williams, column 11 lines 15-60, multiple security modules).  Examiner further contends

that video controllers operatively coupled to the processor and configured to produce a

display signal are well known in the art and it would have been obvious to one of

ordinary skill in the art to incorporate a video controller to allow a user to utilize the

system using graphical user interfaces.

20.     **With regards to claim 27**, APA as modified teaches the first and second

security modules are each adapted to determine if that security module has undergone

TPM initialization (Challener, column 5 lines 6-21, queries to determine if private key is

stored).

21.     **With regards to claims 30, 34**, APA as modified teaches the memory and the

first security module are connected together on a bus and communicate through a

bridge with the processor (Williams, column 11 lines 43-53, management module

accesses the port, Challener, column 4 lines 5-11).

22.     **With regards to claims 33**, APA as modified fails to teach accessing a lock bit in

a memory by each of the plurality of security modules if the security module has not

been initialized.  However, Williams teaches accessing a lock bit in a memory by each

of the plurality of security modules if the security module has not been initialized

(Williams, column 11 lines 17-45, configuration parameters, standby modules stay on

standby until designated as primary module by management module).  At the time the

invention was made, it would have been obvious to a person of ordinary skill in the art to

utilize William's method of determining whether there a module is controlling or

subordinate because it offers the advantage of ensuring that a primary module is always

available and that a module failure will not stop system operation (Williams, column 11

lines 44-53).

23.     **With regards to claim 35**, APA as modified teaches a plurality of security

modules (Challener, column 4 line 60 – column 5 line 6), but fails to teach booting the

computer system once the security module is initialized.  However, Zinsky teaches

booting the computer system once the security module is initialized (Zinsky, column 12

lines 8-25, security device is initialized, computer beings the boot up process). At the

time the invention was made, it would have been obvious to a person of ordinary skill in

the art to utilize Zinsky's method of booting up because it offers the advantage of

providing enhanced security by ensuring protection of system resources (Zinsky,

column 2 lines 13-26).

*Allowable Subject Matter*

24.     Claim 6 is objected to as being dependent upon a rejected base claim, but would.

be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject

matter:  The cited prior art fails to teach or suggest the act of copying the measurement

of the system into the subordinate security module.  As a result, the cited prior art fails

to anticipate or render obvious the above cited claim.


## *Conclusion*


Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action.  Accordingly, **THIS ACTION IS MADE FINAL**.  See MPEP

§ 706.07(a).  Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.  In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Nalven whose telephone number is 571 272 3839. The examiner can normally be reached on Monday - Thursday 8-6, Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on 571 272 3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrew Nalven

KAMBIZ ZAND
SUPERVISORY PATENT EXAMINER